

IN THE CLAIMS

Please amend the claims as follows:

Claim 1. (Currently Amended) A block copolymer mixture ~~containing~~ comprising a branched block copolymer as the main component, ~~characterized in that~~ said block copolymer mixture comprises from 55 to 95 mass% of a vinyl aromatic hydrocarbon and from 5 to 45 mass% of a conjugated diene as monomer units, a linear block copolymer prior to coupling is formed by coupling living active site represented by the following formulae:

S1-B-Li

S2-B-Li

S3-B-Li

(wherein each of S1, S2 and S3 is a polymer block comprising a vinyl aromatic hydrocarbon as monomer units, B is a polymer block comprising a conjugated diene as monomer units, and Li is a living active site comprising lithium, and the number average molecular weights are $S1 > S2 > S3$), and further, (1) molecular weight distribution (M_w/M_n) of a mixture of the polymer blocks S1, S2 and S3 each comprising a vinyl aromatic hydrocarbon as monomer units is within a range of from 3.25 to 6, and (2) in a gel permeation chromatogram of the mixture of the polymer blocks S1, S2 and S3, $M1/M3$ is within a range of from 13 to 25, and $M2/M3$ is within a range of from 2 to 4, where M1, M2 and M3 are peak top molecular weights of components corresponding to S1, S2 and S3, respectively, and

wherein all monomer units are charged as pure monomers and each charge is completely polymerized before the addition of the subsequent charge.

Claim 2. (Original) The block copolymer mixture according to Claim 1, which comprises the branched block copolymer in an amount of from 65 to 90 mass%.

Claim 3. (Currently Amended) The block copolymer mixture according to Claim 1 ~~or 2~~, wherein the proportion of the number of moles of S1 to the total number of moles of S1, S2 and S3 is within a range of from 2 to 30 mol%.

Claim 4. (Currently Amended) The block copolymer mixture according to Claim 1 ~~any one of Claims 1 to 3~~, wherein in the gel permeation chromatogram of the mixture of the polymer blocks S1, S2 and S3, the peak top molecular weight M1 corresponding to S1 is within a range of from 80,000 to 220,000, the peak top molecular weight M2 corresponding to S2 is within a range of from 14,000 to 25,000, and the peak top molecular weight M3 corresponding to S3 is within a range of from 3,000 to 12,000.

Claim 5. (Currently Amended) The block copolymer mixture according to Claim 1 ~~any one of Claims 1 to 4~~, wherein in a the gel permeation chromatogram of the block copolymer mixture ~~containing~~ comprising a branched block copolymer, the molecular weight distribution (Mw/Mn) of the peak at which the peak top molecular weight becomes minimum among peaks which satisfy the following (a) and (b), is less than 1.03:

- (a) the peak top molecular weight is within a range of from 20,000 to 50,000, and
- (b) the proportion of the area is within a range of from 3 to 15% to the whole peak area.

Claim 6. (Currently Amended) The block copolymer mixture according Claim 1 ~~to any one of Claims 1 to 5~~, wherein in a the gel permeation chromatogram of the block copolymer mixture containing a branched block copolymer, the proportion of the area of the peak at which the peak top molecular weight becomes maximum among peaks at which the

peak top molecular weight is within a range of from 200,000 to 380,000, is from 2 to 10% to the whole peak area.

Claim 7. (Currently Amended) The block copolymer mixture according to Claim 1 ~~any one of Claims 1 to 6~~, wherein in a the gel permeation chromatogram of a mixture of copolymers S1-B, S2-B and S3-B, each comprising a the polymer block comprising a the vinyl aromatic hydrocarbon as monomer units and a the polymer block comprising a the conjugated diene as monomer units, M4/M6 is within a range of from 4.5 to 9, and M5/M6 is within a range of from 1.3 to 1.8, where M4, M5 and M6 are peak top molecular weights of components corresponding to S1-B, S2-B and S3-B, respectively.

Claim 8. (Currently Amended) The block copolymer mixture according to Claim 1 ~~any one of Claims 1 to 7~~, wherein a component providing the maximum peak area in the gel permeation chromatogram of the block copolymer mixture ~~containing~~ comprising a the branched block copolymer, has a peak top molecular weight of from 170,000 to 300,000.

Claim 9. (Currently Amended) The block copolymer mixture according to Claim 1 ~~any one of Claims 1 to 8~~, which is formed by coupling using an epoxidized oil.

Claim 10. (Original) The block copolymer mixture according to Claim 9, wherein the epoxidized oil is epoxidized soybean oil.

Claim 11. (Currently Amended) The block copolymer mixture according to Claim 9 ~~or 10~~, wherein the proportion of the number of moles of an open epoxy group residue present in an epoxidized oil residue in the branched block copolymer is less than 0.7 to the total

number of moles of epoxy groups and the open epoxy group residue present in the epoxidized oil residue.

Claim 12. (Currently Amended) A thermoplastic resin composition comprising the block copolymer mixture as defined in Claim 1 ~~any one of Claims 1 to 11~~ and a thermoplastic resin other than the block copolymer mixture.

Claim 13. (Original) The thermoplastic resin composition according to Claim 12, wherein the thermoplastic resin is a styrene resin.

Claim 14. (New) A block copolymer mixture comprising a branched block copolymer as the main component, said block copolymer mixture comprises from 55 to 95 mass% of a vinyl aromatic hydrocarbon and from 5 to 45 mass% of a conjugated diene as monomer units, a linear block copolymer prior to coupling is formed by coupling living active site represented by the following formulae:

S1-B-Li

S2-B-Li

S3-B-Li

(wherein each of S1, S2 and S3 is a polymer block comprising a vinyl aromatic hydrocarbon as monomer units, B is a polymer block comprising a conjugated diene as monomer units, and Li is a living active site comprising lithium, and the number average molecular weights are $S1 > S2 > S3$), and further, (1) molecular weight distribution (M_w/M_n) of a mixture of the polymer blocks S1, S2 and S3 each comprising a vinyl aromatic hydrocarbon as monomer units is within a range of from 3.25 to 6, and (2) in a gel permeation chromatogram of the mixture of the polymer blocks S1, S2 and S3, $M1/M3$ is within a range of from 13 to 25, and

M2/M3 is within a range of from 2 to 4, where M1, M2 and M3 are peak top molecular weights of components corresponding to S1, S2 and S3, respectively, and

wherein each polymer block S1, S2, and S3 comprising the vinyl aromatic hydrocarbon as monomer units is directly attached to the conjugated diene polymer block B; the polymer blocks S1, S2, and S3 do not comprise the conjugated diene polymer block B; and the conjugated diene polymer block B does not comprise the polymer blocks S1, S2, and S3 comprising the vinyl aromatic hydrocarbon as monomer units.

Claim 15. (New) The block copolymer mixture according to Claim 14, which comprises the branched block copolymer in an amount of from 65 to 90 mass%.

Claim 16. (New) The block copolymer mixture according to Claim 14, wherein the proportion of the number of moles of S1 to the total number of moles of S1, S2 and S3 is within a range of from 2 to 30 mol%.

Claim 17. (New) The block copolymer mixture according to Claim 14, wherein in the gel permeation chromatogram of the mixture of the polymer blocks S1, S2 and S3, the peak top molecular weight M1 corresponding to S1 is within a range of from 80,000 to 220,000, the peak top molecular weight M2 corresponding to S2 is within a range of from 14,000 to 25,000, and the peak top molecular weight M3 corresponding to S3 is within a range of from 3,000 to 12,000.

Claim 18. (New) The block copolymer mixture according to Claim 14, wherein in a the gel permeation chromatogram of the block copolymer mixture comprising a branched block copolymer, the molecular weight distribution (Mw/Mn) of the peak at which the peak

top molecular weight becomes minimum among peaks which satisfy the following (a) and (b), is less than 1.03:

(a) the peak top molecular weight is within a range of from 20,000 to 50,000, and

(b) the proportion of the area is within a range of from 3 to 15% to the whole peak area.

Claim 19. (New) The block copolymer mixture according Claim 14, wherein in a the gel permeation chromatogram of the block copolymer mixture containing a branched block copolymer, the proportion of the area of the peak at which the peak top molecular weight becomes maximum among peaks at which the peak top molecular weight is within a range of from 200,000 to 380,000, is from 2 to 10% to the whole peak area.

Claim 20. (New) The block copolymer mixture according to Claim 14, wherein in a the gel permeation chromatogram of a mixture of copolymers S1-B, S2-B and S3-B, each comprising a the polymer block comprising a the vinyl aromatic hydrocarbon as monomer units and a the polymer block comprising a the conjugated diene as monomer units, $M4/M6$ is within a range of from 4.5 to 9, and $M5/M6$ is within a range of from 1.3 to 1.8, where M4, M5 and M6 are peak top molecular weights of components corresponding to S1-B, S2-B and S3-B, respectively.

Claim 21. (New) The block copolymer mixture according to Claim 14, wherein a component providing the maximum peak area in the gel permeation chromatogram of the block copolymer mixture comprising the branched block copolymer, has a peak top molecular weight of from 170,000 to 300,000.

Claim 22. (New) The block copolymer mixture according to Claim 14, which is formed by coupling using an epoxidized oil.

Claim 23. (New) The block copolymer mixture according to Claim 22, wherein the epoxidized oil is epoxidized soybean oil.

Claim 24. (New) The block copolymer mixture according to Claim 22, wherein the proportion of the number of moles of an open epoxy group residue present in an epoxidized oil residue in the branched block copolymer is less than 0.7 to the total number of moles of epoxy groups and the open epoxy group residue present in the epoxidized oil residue.

Claim 25. (New) A thermoplastic resin composition comprising the block copolymer mixture as defined in Claim 14 and a thermoplastic resin other than the block copolymer mixture.

Claim 26. (New) The thermoplastic resin composition according to Claim 25, wherein the thermoplastic resin is a styrene resin.